
A New Species of *Bashania* (Poaceae: Bambusoideae) from Mt. Qinling, Shaanxi, China

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ABSTRACT. The new species *Bashania aristata* of Bambusoideae (Poaceae) from the giant panda's habitat of Mt. Qinling, Shaanxi, China, is described and illustrated. The new species differs from *B. fargesii* in its fully developed culm sheath auricles and aristate lemmas and from *B. qingchengshanensis* in its fully developed culm sheath auricles and in its lack of auricle leaf sheaths. Its relationship to the other species of *Bashania* is discussed along with the status of this genus.

Key words: Bambusoideae, *Bashania*, China, Poaceae.

Bashania Keng f. & T. P. Yi was described (Keng & Yi, 1982) for *Arundinaria fargesii* E. G. Cames because *Arundinaria* Michaux is endemic to North America, and they differ from each other both in the flowers and the number of primary branches per culm node. It is readily distinguished from the related Chinese *Gelidocalamus* T. H. Wen by longer branches growing from the culm, and the presence of secondary branches, and more than two leaves on the terminal twigs. *Gelidocalamus* has short branches from the culm, without secondary branches, and with one or two leaves on the twigs.

The genus *Bashania* consists of seven species: *B. fargesii*, *B. qingchengshanensis* (Keng & Yi, 1982, 1996), *B. faberi* (Yi, 1993) (= *B. fangiana*, Wen, 1985; Keng & Yi, 1996), *B. spanostachya* (Yi, 1989; Keng & Yi, 1996), *B. baoxingensis* (Yi, 2000), *B. auctiaurita* (Yi, 1986), and the new species *B. aristata*, most of them endemic to Sichuan and adjacent Shaanxi, Gansu, Hubei, Hunan, and Yunnan Provinces of China.

The new species, *Bashania aristata*, is common in Foping National Nature Reserve and can also be

found in Changqing National Nature Reserve and other areas of Shaanxi Province. These reserves are the main distribution of the giant panda on Mt. Qinling. When we surveyed the plants in the habitat of the giant panda in Mt. Qinling in 1999, we found that some individuals of *Bashania* were flowering but some were not. The flowering individuals and non-flowering individuals were distributed in staggered plots in the area named Sanguanmiao in Foping National Nature Reserve. This phenological pattern was abnormal according to the common knowledge of the flowering behavior of bamboo, and it was assumed that there was only one species, *B. fargesii*, distributed in the reserve. After comparison of the flowering and non-flowering individuals, we found that the flowering individuals differed in having aristate lemmas and auricular culm sheaths. Further survey indicated that the same phenomenon also existed in another giant panda reserve, Changqing National Nature Reserve located south of Foping National Nature Reserve, as well as other areas in Mt. Qinling. The staggered distribution of *B. aristata* and *B. fargesii* correlates with the absence of any report of wholesale bamboo death after flowering over a large area in the forest of *Bashania* in the giant panda's habitat on Mt. Qinling.

Bashania aristata Y. Ren, Y. Li & G. D. Dang, sp. nov. TYPE: China. Shaanxi: Foping County, Sanguanmiao, Chaoyangpo, 33°39'16.875N, 107°47'11.25E, 1600 m, 28 Apr. 1999, Ren Yi 906 (holotype, WNU; isotype, MO). Figure 1.

Species differt a *B. fargesii* vaginis auriculatis, lemmis aristatis, a *B. qingchengshanensi* vaginis auriculatis, auriculis foliorum carentibus.

Rhizome leptomorph, monopodial, internodes

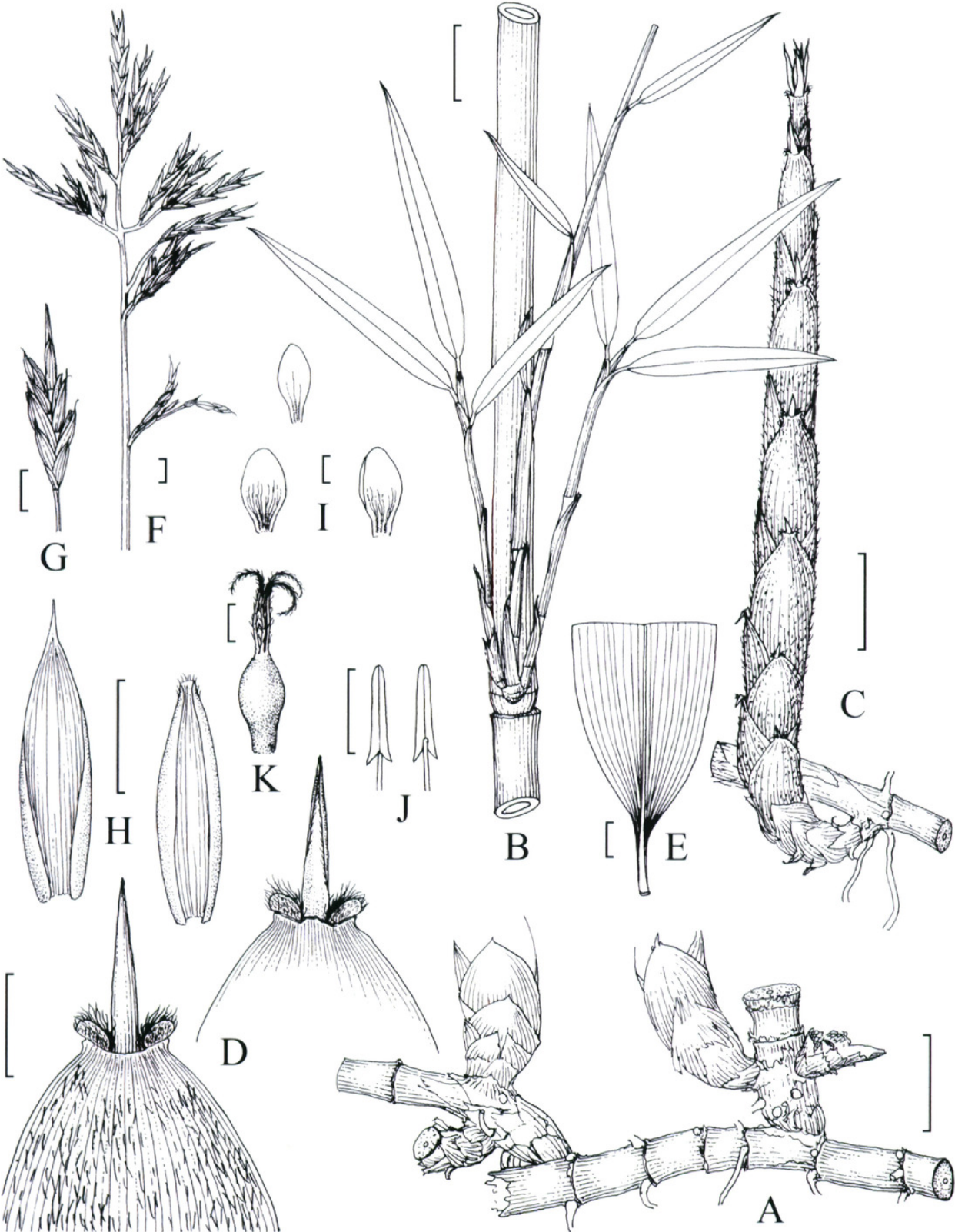


Figure 1. *Bashania aristata* Y. Ren, Y. Li & G. D. Dang. —A. Rhizome and culm base; the transverse rhizome and the left branches show the monopodial growth pattern and the right branches show the sympodial growth pattern. —B. Part of culm. —C. New shoot. —D. Upper part of a culm leaf, showing the sheath auricles and blade. —E. Base of a leaf. —F. Inflorescence. —G. Spikelet. —H. Lemma (left) and palea (right). —I. Lodicules. —J. Stamens. —K. Pistil. Scale bars: A–C = 5 cm; D, E, G = 1 cm; F, H, J = 5 mm; I, K = 1 mm. Drawn by Guo Mu-seng from the holotype, *Ren Yi* 906 (WNU), at Sanguanmiao.



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